Amendments to the Claims

The following listing of claims will replace all prior versions and listings of claims in the application.

1-57. (canceled)

58. (currently amended) A method for the production of 1,2,3,4-tetrahydroxybenzene, comprising:

a) incubating, in the presence of a carbon source, a first microbe comprising a recombinant DNA encoding a naturally occurring *myo*-inositol-1-phosphate synthase and a second microbe which expresses a naturally occurring inositol dehydrogenase ~~activity~~ to produce *myo*-2-inosose; and

b) converting the *myo*-2-inosose to 1,2,3,4-tetrahydroxybenzene by acid catalyzed dehydration.

59. (previously presented) The method of claim 58 wherein the first microbe comprises an *INO1* gene.

60. (previously presented) The method of claim 59 wherein the *INO1* gene comprises a *Saccharomyces cerevisiae INO1* gene.

61. (previously presented) The method of claim 60 wherein the *INO1* gene is comprised by pAD1.88A.

62. (previously presented) The method of claim 58 wherein the first microbe is an *Escherichia coli*.

63. (previously presented) The method of claim 62 wherein the *Escherichia coli* is JWF1/pAD1.88A.

64. (previously presented) The method of claim 58 wherein the second microbe is *Gluconobacter oxydans*.

65. (previously presented) The method of claim 64 wherein the *Gluconobacter oxydans* is ATCC 621.

66. (currently amended) The method of claim 58 wherein the second microbe comprises a recombinant DNA encoding the naturally occurring inositol dehydrogenase.

67. (currently amended) The method of claim ~~58~~ 66 wherein the DNA encoding the naturally occurring inositol dehydrogenase comprises a *Bacillus subtilis iolG* gene.

68. (previously presented) The method of claim 58 wherein the carbon source comprises glucose.

69. (previously presented) A method for the production of 1,2,3-trihydroxybenzene, comprising producing 1,2,3,4-tetrahydroxybenzene in accordance with claim 58 and reducing the 1,2,3,4-tetrahydroxybenzene to 1,2,3-trihydroxybenzene.

70. (withdrawn) A method for the production of 1,2,3,4-tetrahydroxybenzene, comprising:

a) incubating, in the presence of a carbon source, a microbe comprising a first recombinant DNA encoding *myo*-inositol-1-phosphate synthase and a second recombinant DNA encoding inositol dehydrogenase, to produce *myo*-2-inosose; and

b) converting the *myo*-2-inosose to 1,2,3,4-tetrahydroxybenzene by acid catalyzed dehydration.

71. (withdrawn) The method of claim 70 wherein the recombinant DNA encoding *myo*-inositol-1-phosphate synthase comprises *INO1*.

72. (withdrawn) The method of claim 71 wherein *INO1* comprises a *Saccharomyces cerevisiae INO1*.

73. (withdrawn) The method of claim 70 wherein the DNA encoding inositol dehydrogenase comprises *iolG*.

74. (withdrawn) The method of claim 70 wherein the DNA encoding inositol dehydrogenase comprises a *Bacillus subtilis iolG*.

75. (withdrawn) The method of claim 70 wherein the first recombinant DNA encoding *myo*-inositol-1-phosphate synthase and the second recombinant DNA encoding inositol dehydrogenase comprise pAD2.88A.

76. (withdrawn) The method of claim 70 wherein the microbe is an *Escherichia coli*.

77. (withdrawn) The method of claim 70 wherein the carbon source comprises glucose.

78. (withdrawn) A method for the production of 1,2,3,4-tetrahydroxybenzene, comprising producing 1,2,3,4-tetrahydroxybenzene in accordance with claim 70 and reducing the 1,2,3,4-tetrahydroxybenzene to 1,2,3,4-trihydroxybenzene

79. (previously presented) A microbe comprising a recombinant DNA encoding *myo*-inositol-1-phosphate synthase.

80. (previously presented) The microbe of claim 79 wherein the recombinant DNA encoding *myo*-inositol-1-phosphate synthase comprises an *INO1* gene.

81. (previously presented) The microbe of claim 80 wherein the *INO1* gene comprises a *Saccharomyces cerevisiae INO1* gene.

82. (previously presented) The microbe of claim 81 wherein the *INO1* gene is comprised by pAD1.88A.

83. (previously presented) The microbe of claim 79 which is an *Escherichia coli.*

84. (canceled)

85. (withdrawn) The microbe of claim 79 further comprising a recombinant DNA encoding inositol dehydrogenase.

86. (withdrawn) The microbe of claim 85 wherein the recombinant DNA encoding inositol dehydrogenase comprises a *Bacillus subtilis iolG* gene.

87. (currently amended) A fermentation composition comprising a first microbe which comprises a recombinant DNA encoding a naturally occurring *myo*-inositol-1-phosphate synthase and a second microbe which expresses a naturally occurring inositol dehydrogenase.

88. (previously presented) The fermentation composition of claim 87 wherein the first microbe comprises an *INO1* gene.

89. (previously presented) The fermentation composition of claim 88 wherein the *INO1* gene comprises a *Saccharomyces cerevisiae INO1* gene.

90. (previously presented) The fermentation composition of claim 89 wherein the *INO1* gene is comprised by pAD1.88A.

91. (previously presented) The fermentation composition of claim 87 wherein the first microbe is an *Escherichia coli.*

92. (previously presented) The fermentation composition of claim 91 wherein the *Escherichia coli* is JWF1/pAD1.88A.

93. (previously presented) The fermentation composition of claim 87 wherein the second microbe is *Gluconobacter oxydans*.

94. (previously presented) The fermentation composition of claim 93 wherein the *Gluconobacter oxydans* is ATCC 621.

95. (currently amended) The fermentation composition of claim 87 wherein the second microbe comprises a recombinant DNA encoding the naturally occurring inositol dehydrogenase.

96. (currently amended) The fermentation composition of claim 95 wherein the DNA encoding the naturally occurring inositol dehydrogenase comprises a *Bacillus subtilis iolG* gene.

97. (previously presented) The fermentation composition of claim 87 further comprising glucose.

98. (withdrawn) A fermentation composition comprising a microbe which comprises a first recombinant DNA encoding *myo*-inositol-1-phosphate synthase and a second recombinant DNA encoding inositol dehydrogenase.

99. (withdrawn) The fermentation composition of claim 98 wherein the recombinant DNA encoding *myo*-inositol-1-phosphate synthase comprises an *INO1* gene.

100. (withdrawn) The fermentation composition of claim 99 wherein the *INO1* gene comprises a *Saccharomyces cerevisiae INO1* gene.

101. (withdrawn) The fermentation composition of claim 100 wherein the *INO1* gene comprises pAD1.88A.

102. (withdrawn) The fermentation composition of claim 98 wherein the microbe is an *Escherichia coli*.

103. (withdrawn) The fermentation composition of claim 98 wherein the DNA encoding inositol dehydrogenase comprises a *Bacillus subtilis iolG* gene.

104. (withdrawn) The fermentation composition of claim 98 further comprising glucose.

105. (currently amended) A method for the production of 1, 2, 3, 4-tetrahydroxybenzene, comprising:

a) incubating, in the presence of a carbon source, a first microbe comprising a recombinant DNA encoding a naturally occurring *myo*-inositol-1-phosphate synthase , thereby forming *myo*-inositol;

b) incubating the *myo*-inositol in the presence of a second microbe which expresses inositol dehydrogenase activity, thereby forming *myo*-2-inosose; and

c) converting the *myo*-2-inosose to 1, 2, 3, 4-tetrahydroxybenzene by acid catalyzed dehydration.

106. (previously presented) The method of claim 105 wherein the first microbe comprises an *INO1* gene.

107. (previously presented) The method of claim 106 wherein the *INO1* gene comprises a *Saccharomyces cerevisiae INO1* gene.

108. (previously presented) The method of claim 107 wherein the *INO1* gene is comprised by pAD1.88A.

109. (previously presented) The method of claim 105 wherein the first microbe is an *Escherichia coli.*

110. (previously presented) The method of claim 109 wherein the *Escherichia coli* is JWF1/pAD1.88A.

111. (previously presented) The method of claim 105 wherein the second microbe is *Gluconobacter oxydans.*

112. (previously presented) The method of claim 111 wherein the *Gluconobacter oxydans* is ATCC 621.

113. (previously presented) The method of claim 105 wherein the second microbe comprises a recombinant DNA encoding inositol dehydrogenase.

114. (currently amended) The method of claim ~~105~~ 113 wherein the DNA encoding inositol dehydrogenase comprises a *Bacillus subtilis iolG* gene.

115. (previously presented) The method of claim 105 wherein the carbon source comprises glucose.

116. (previously presented) A method for the production of 1,2,3-trihydroxybenzene, comprising producing 1,2,3,4-tetrahydroxybenzene in accordance with claim 105 and reducing the 1,2,3,4-tetrahydroxybenzene to 1,2,3-trihydroxybenzene.

117. (previously presented) A microbe comprising a recombinant DNA encoding *myo*-inositol-1-phosphate synthase, wherein the microbe is *Escherichia coli* JWF1/pAD1.88A.